

Notice of Allowability

Application No.

10/051,226

Examiner

Tom V. Sheng

Applicant(s)

LEE ET AL.

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 2/22/2007.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Allowable Subject Matter

1. Claims 1-16 are allowed.
2. The following is an examiner's statement of reasons for allowance:

The invention is directed to a thin film transistor liquid crystal display of a line inversion type for block-driving data lines that can prevent visual defect at the block boundary. The TFT-LCD includes at least one extension part from each data line at a block boundary that overlaps with a pixel electrode at respective block boundary. Block defect correcting capacitances are thus created.

Independent claim 1 identifies, inter alia, the uniquely distinct features "a plurality of pixels arranged in a matrix and divided into a plurality of blocks for block driving, each block having a boundary pixel at a boundary of an adjacent previous block and a non-boundary pixel separated from the boundary by at least the boundary pixels" and "wherein the boundary data line has an extension part overlapping a portion of the pixel electrode corresponding to the boundary pixel, and the non-boundary data line does not include an extension part overlapping a portion of the pixel electrode corresponding to the non-boundary pixel."

Independent claim 6 identifies, inter alia, the uniquely distinct features "wherein the TFT-LCD further comprises at least one of the plurality of data lines having an extension part overlapping at least one of the plurality of pixel electrodes of a boundary pixel, and wherein at least one of the plurality of data lines corresponding to a non-boundary pixel does not have an extension part overlapping the non-boundary pixel."

Independent claim 12 identifies, inter alia, the uniquely distinct features “a plurality of data lines comprising a boundary data line overlapping the pixel electrode of the boundary pixel region and a non-boundary data line different from the boundary data line provided corresponding to but not overlapping the pixel electrode of the non-boundary pixel region.”

Song et al. (US 6,313,889), hereinafter Song, teaches a matrix LCD with a repair layout. Two or more of signal lines such as scanning lines, display signal lines and auxiliary signal lines, and a pixel electrode are overlapped via an insulating layer, so that a defect such as the disconnection of the displaying signal lines can be repaired. Each display signal line has an extension over each adjacent pixel electrode. Song does not teach block driving and specifically the use of extension over boundary pixels to minimize block defect in display. Song does not teach nor suggest above limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom V. Sheng whose telephone number is (571) 272-7684. The examiner can normally be reached on 9:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tom Sheng

AMR A. AWAD
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read "Amr A. Awad", with a large, sweeping flourish extending from the end of the signature.